```
axmi009    ------MNSYKNKNEYEMLDALRINSNMSNCYPRYPLAKDPQMTRNTNYKEWLNMCDSN  54
cry1Aa     ------------------MDNNPNINECIPYN---CLSNPEVEVLGG------------  26
cry1Ac     ------------------MDNNPNINECIPYN---CLSNPEVEVLGG------------  26
cry1Ca     ------------------MEEN-NQNQCIPYN---CLSNPEEVLLDG-----------  25
cry1Ia     --------MKLKNQDKHQSFSSNAKVDKISTDS---LKNETDIELQNINHEDCLKMSEYE  49
cry3Aa1    MIRKGGRKMNPNNRSEHDTIKTTENNEVPTNHVQYPLAETPNPTLEDLNYKEFLRMTADN  60
cry3Ba     MIRMGGRKMNPNNRSEYDTIKVTPNSELPTNHNQYPLADNPNSTLEELNYKEFLRMTADN  60
cry3Bb     --------MNPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLEELNYKEFLRMTEDS  52
cry4Aa     ------MNPYQNKNEYETLNASQKKLNISNNYTRYPIENSPKQLLQSTNYKDWLNMCQQN  54
cry6Aa     ------MIIDSKTTLPRHSLIHTIKLNSNKKYGPGDMTNGNQFIISKQE----------  43
cry7Aa     ----------MNLNNLDGYEDSNRTLNNSLNYP---TQKALSPSLKNMNYQDFLSITERE  47
cry8Aa     --------MSPNNQNEYEIIDATPSTSVSSDSNRYPFANEPTDALQNMNYKDYLKMSGGE  52
cry10Aa    ------MNPYQNKNEYEIFNAPSNGFSKSNNYSRYPLANKPNQPLKNTNYKDWLNVCQDN  54
cry16Aa    ------MHYYGNRNEYDILNASSNDSNMSNTYPRYPLANPQQDLMQNTNYKDWLNVCEGY  54
cry19Ba    ------MNSYQNKNEYEILDAKRNTCHMSNCYPKYPLANDPQMYLRNTHYKDWINMCEEA  54
cry24Aa    ------MNQYQNKNEYEILESSQNNMNMPNRYP---FADDPNAVMKNGNYKDWVNECEG-  50
cry25Aa    ------MNPYQNKSECEILNAPLNNINMPNRYP---FANDPNAVMKNGNYKDWLNECDG-  50
cry40Aa1   -------NSYENKNEYEILESSSNNTNMPNRYP---FANDRDMSTMS------FNDCQG-  43


axmi009    TQFIGDISTYSSPEAALSVRDAVLTGINSVGTILSNLGVPLASQSFGIISRLIGILWAGP  114
cry1Aa     -------------ERIETGYTPIDISLSLTQFLLSEF-VPGAGFVLGLVDIIWGIFGPSQ  72
cry1Ac     -------------ERIETGYTPIDISLSLTQFLLSEF-VPGAGFVLGLVDIIWGIFGPSQ  72
cry1Ca     -------------ERISTGNSSIDISLSLVQFLVSNF-VPGGGFLVGLIDFVWGIVGPSQ  71
cry1Ia     N-----------VEPFVSASTIQTGIGIAGKILGTLGVPFAGQVASLYSFILGELWP-K   96
cry3Aa1    NT---------EALDSSTTKDVIQKGISVVGDLLGVVGPFGGALVSFYTNFLNTIWPSE  111
cry3Ba     ST---------EVLDSSTVKDAVGTGISVVGQILGVVGPFAGALTSFYQSFLNAIWPSD  111
cry3Bb     ST---------EVLDNSTVKDAVGTGISVVGQILGVVGPFAGALTSFYQSFLNTIWPSD  103
cry4Aa     QQYG-------GDFETFIDSGELSAYTIVVGTVLTGFGFTTPLGLALIGFGTLIPVLFPA  107
cry6Aa     ---------------WATIGAYIQTGLGLPVNEQQLRTHVNLSQDISIPSDFSQLYDVYCSD  90
cry7Aa     QP-----------EALASGNTAINTVVSVTGATLSALGVPGASFITNFYLKIAGLLWPEN  96
cry8Aa     NPELF------GNPETFISSSTIQTGIGIVGRILGALGVPFASQIASFYSFIVGQLWPSK  106
cry10Aa    QQYGNNA----GNFASSETIVGVSAGIIVVGTMLGAFAAP-VLAAGIISFGTLLPIFWQG  109
cry16Aa    HIEN---------PREASVRAGLGKGLGIVSTIVGFFGGSIILDTIGLFYQISELLWPED  105
cry19Ba    SYAS---------SGPSQL---FKVGGSIVAKILG-----MIPEVGPLLSWMVSLFWPTI  97
cry24Aa    ---------------SNISPSPAAAITSKIVSIVLKTLAKAVASSLADSIKSSLGISKTIT  96
cry25Aa    ---------------ITPSIFGTLGVLASIVISTINLATSPSIGDAFALVSSIGEYWPETK  96
cry40Aa1   ---------------ISWDEIWESAETITSIGIDLIEFLMEPSLGGINTLFSIIGKLIPTN  89
                                                           :


axmi009    DP----FEALMVLVEELIKKSIDQRVRENALRELEG--LQGIMRLYQTRLQAWLVNKN--  166
cry1Aa     ------WDAFPVQIEQLINQRIEEFARNQAISRLEG--LSNLYQIYAESFREWEADPT--  122
cry1Ac     ------WDAFLVQIEQLINQRIEEFARNQAISRLEG--LSNLYQIYAESFREWEADPT--  122
cry1Ca     ------WDAFLVQIEQLINERIAEFARNAAIANLEG--LGNNFNIYVEAFKEWEEDPN--  121
cry1Ia     GK--NQWEIFMEHVEEIINQKISTYARNKALTDLKG--LGDALAVYHDSLESWVGNRN--  150
cry3Aa1    ----DPWKAFMEQVEALMDQKIADYAKNKALAELQG--LQNNVEDYVSALSSWQKNPVS-  164
cry3Ba     A---DPWKAFMAQVEVLIDKKIEEYAKSKALAELQG--LQNNFEDYVNALDSWKKAPVN-  165
cry3Bb     A---DPWKAFMAQVEVLIDKKIEEYAKSKALAELQG--LQNNFEDYVNALNSWKKTPLS-  157
cry4Aa     QDQSNTWSDFITQTKNIIKKEIASTYISNANKILNR--SFNVISTYHNHLKTWENNP---  162
cry6Aa     KTSAEWWNKNLYPLIIKSANDIASYGFKVAGDPSIK--KDGYFKKLQDELDNIVDNNS--  146
cry7Aa     GK--I-WDEFMTEVEALIDQKIEEYVRNKAIAELDG--LGSALDKYQKALADWLGKQD--  149
cry8Aa     SV--DIWGEIMERVEELVDQKIEKYVKDKALAELKG--LGNALDVYQQSLEDWLENRN--  160
cry10Aa    SDPANVWQDLLNIGG-RPIQEIDKNIINVLTSIVTP--IKNQLDKYQEFFDKWEPAR---  163
cry16Aa    DTQQYTWQDIMNHVEDLIDKRITEVIRGNAIRTLAD--LQGKVDDYNNWLKKWKDDPK--  161
cry19Ba    EEKNTVWEDMIKYVANLLKQELTNDTLNRATSNLSG--LNESLNIYNRALAAWKQNKN--  153
cry24Aa    EN--NVSQVSMVQVHQIINRRIQETILDLGES-SLNGLVAIYNRDYLGALEAWNNN----  149
cry25Aa    TS----FPLSVADVNRLIREALDQNAINRATGKFNG-LMDTYNTVYLKNLQDWYDTRIPA  151
cry40Aa1   HQ--SVSALSICDLLSIIRKEVADSVLSDAICRFLDGKLKNYREYYLPYLEAWLKDGKPL  147
                    .  :                                    :
```

FIG. 1A

```
axmi009     -----DDNRRALVTQYAIVDNFFEKNMPKFKERN---------FEILLLPVYAQAANLHL 212
cry1Aa      ----NPALREEMRIQFNDMNSALTTAIPLLAVQN---------YQVPLLSVYVQAANLHL 169
cry1Ac      ----NPALREEMRIQFNDMNSALTTAIPLFAVQN---------YQVPLLSVYVQAANLHL 169
cry1Ca      ----NPATRTRVIDRFILDGLLERDIPSFRISG---------FEVPLLSVYAQAANLHL 168
cry1Ia      ----NTRARSVVKSQYIALELMFVQKLPSFAVSG---------EEVPLLPIYAQAANLHL 197
cry3Aa1     --SRNPHSQGRIRELFSQAESHFRNSMPSFAISG--------YEVLFLTTYAQAANTHL 213
cry3Ba      --LRSRRSQDRIRELFSQAESHFRNSMPSFAVSK--------FEVLFLPTYAQAANTHL 214
cry3Bb      --LRSKRSQDRIRELFSQAESHFRNSMPSFAVSK--------FEVLFLPTYAQAANTHL 206
cry4Aa      ----NPQNTQDVRTQIQLVHYHFQNVIPELVNSCPPNPSDCDYYNILVLSSYAQAANLHL 218
cry6Aa      ----DDDAIAKAIKDFKARCGILIKEAKQYEEAAKN----------------IVTSLDQ 185
cry7Aa      ----DPEAILSVATEFRIIDSLFEFSMPSFKVTG--------YEIPLLTVYAQAANLHL 196
cry8Aa      ----DARTRSVVSNQFIALDLNFVSSIPSFAVSG--------HEVLLLAVYAQAVNLHL 207
cry10Aa     ----THANAKAVHDLFTTLEPIIDKDLDMLKNNAS-------YRIPTLPAYAQIATWHL 211
cry16Aa     ----STGNLSTLVTKFTALDSDFNGAIRTVNNQGSP------GYELLLLPVYAQIANLHL 211
cry19Ba     ----NFASGELIRSYINDLHILFTRDIQSDFSLG--------GYETVLLPSYASAANLHL 201
cry24Aa     --KSNINYQTNVAEAFKTVEREFFTKLKGIYRTSS-------SQITLLPTFTQAANLHL 199
cry25Aa     NPQGDSQLREAAARRSLEEIERDFRKALAGEFAEAG-------SQIVLLPIYAQAANIHL 203
cry40Aa1    Q-KTNNSDIGQLVKYFELSERDFNEILGGSLARNN-------AQILLLPYFCASCKCQL 198
                                  :                                . .

axmi009     ILLRDADYFGAQWQLGDDEIR-------------------DNYIRLQGLIREYKDHCI 251
cry1Aa      SVLRDVSVFGQRWGFD-----AATI--------------NSRYNDLTRLIGNYTDYAV 208
cry1Ac      SVLRDVSVFGQRWGFD-----AATI--------------NSRYNDLTRLIGNYTDYAV 208
cry1Ca      AILRDSVIFGERWGLT-----TINV--------------NENYNRLIRHIDEYADHCA 207
cry1Ia      LLLRDASIFGKEWGLS-----SSEI--------------STFYNRQVERAGDYSDHCV 236
cry3Aa1     FLLKDAQIYGEEWGYE-----KEDI--------------AEFYKRQLKLTQEYTDHCV 252
cry3Ba      LLLKDAQVFGEEWGYS-----SEDI--------------AEFYQRQLKLTQQYTDHCV 253
cry3Bb      LLLKDAQVFGEEWGYS-----SEDV--------------AEFYHRQLKLTQQYTDHCV 245
cry4Aa      TVLNQAVKFEAYLKNN-----RQFDY-------LEPLPTAIDYYPVLTKAIEDYTNYCV 265
cry6Aa      FLHGDQKKLEGVINIQ------------------------KRLKEVQTALNQAHGESS 219
cry7Aa      ALLRDSTLYGDKWGFT-----QNNI--------------EENYNRQKKRISEYSDHCT 235
cry8Aa      LLLRDASIFGEEWGFT-----PGEI--------------SRFYNRQVQLTAEYSDYCV 246
cry10Aa     NLLKHAATYYNIWLQN-----QGIN---------PSTFNSSNYYQGYLKRKIQEYTDYCI 257
cry16Aa     LLLRDAQIYGDKWWSA-----RANA--------------RDNYYQIQLEKTKEYTEYCI 251
cry19Ba     LLLRDVAIYG-KELGY-----PSTD--------------VEFYYNEQKYYTEKYSNYCV 240
cry24Aa     SMLRDAVMYQEGWNLQ-----SHIN----------------YSKELDDALEDYTNYCV 236
cry25Aa     LILKDAMQFRTDLGLIRPVGVPITTS------------AEDPFESEFLLRIKKYTDHCI 250
cry40Aa1    LLLRDAVQYEEQWFPF-----LSAENVRSELISPNSGCDFTGDYYERLKCKIAEYTDYCE 253
                   :  .                                      .      .   .

axmi009     TFYNQGLNQFNRSNA------QDWVSFNRFRTDMTLTVLDLAILFPNYDPRRYPLA---- 301
cry1Aa      RWYNTGLERVWGPDS------RDWVRYNQFRRELTLTVLDIVALFSNYDSRRYPIR---- 258
cry1Ac      RWYNTGLERVWGPDS------RDWVRYNQFRRELTLTVLDIVALFPNYDSRRYPIR---- 258
cry1Ca      NTYNRGLNNLPKSTY------QDWITYNRLRRDLTLTVLDIAAFFPNYDNRRYPIQ---- 257
cry1Ia      KWYSTGLNNLRGTNA------ESWVRYNQFRRDMTLMVLDLVALFPSYDTQMYPIK---- 286
cry3Aa1     KWYNVGLDKLRGSSY------ESWVNFNRYRREMTLTVLDLIALFPLYDVRLYPKE---- 302
cry3Ba      NWYNVGLNSLRGSTY------DAWVKFNRFRREMTLTVLDLIVLFPFYDVRLYSKG---- 303
cry3Bb      NWYNVGLNGLRGSTY------DAWVKFNRFRREMTLTVLDLIVLFPFYDIRLYSKG---- 295
cry4Aa      TTYKKGLNLIKTTPDSNLDGNINWNTYNTYRTKMTTAVLDLVALFPNYDVGKYPIG---- 321
cry6Aa      PAHKELLEKVKNLKT-------TLERTIKAEQDLEKKVEYSFLLGPLLGFVVYEILEN-- 270
cry7Aa      KWYNSGLSRLNGSTY------EQWINYNRFRREMILMALDLVAVFPPHDPRRYSME---- 285
cry8Aa      KWYKIGLDKLKGTTS------KSWLNYHQFRREMTLLVLDLVALFPNYDTHMYPIE---- 296
cry10Aa     QTYNAGLTMIRTN-------TNATWNMYNTYRLEMTLTVLDLIAIFPNYDPEKYPIG---- 307
cry16Aa     NWYNKGLNDFRTAGQ--------WVNFNRYRREMTLTVLDIISMFPIYDARLYPT----- 298
cry19Ba     NTYKSGLESKKQIG---------WSDFNRYRREMTLSVLDIVALFPLYDTGLYPSKDGKI 291
cry24Aa     EVYTKGLNALR--GSTAI----DWLEFNSFRRDMTLMVLDLVAIFPNYNPVRYPLS---- 286
cry25Aa     SYYDDGLAKIRSRGSDG----ETWWEFNKFRREMTLTVLDLVALYPTHNIKLYPIP---- 302
cry40Aa1    YWYQAGLNQIKQAGTGAD----TWAKFNKFRREMTLTVLDIIAIFQTYDFKKYPLP---- 305
                   :     *                        . .:   .      .      .    *
```

FIG. 1B

```
axmi009    -VKTELTREVYTDPVGFTGVLESGGRTYPWYNPNNTTFTAMENNARRRPSYTTWLNRIFV 360
cry1Aa     -TVSQLTREIYTNPVLENFDGSFRGMAQR------------IEQNIRQPHLMDILNSITI 305
cry1Ac     -TVSQLTREIYTNPVLENFDGSFRGSAQG------------IERSIRSPHLMDILNSITI 305
cry1Ca     -PVGQLTREVYTDPLIN-FNPQLQSVAQLPTF------NVMESSAIRNPHLFDILNNLTI 309
cry1Ia     -TTAQLTREVYTDAIGTVHPHPSFTSTTWYNNNA-PSFSAIEAAVVRNPHLLDFLEQVTI 344
cry3Aa1    -VKTELTRDVLTDPIVGVNNLRGYGTTFSN----------IENYIRKPHLFDYLHRIQF 350
cry3Ba     -VKTELTRDIFTDPIFTLNALQEYGPTFSS----------IENSIRKPHLFDYLRGIEF 351
cry3Bb     -VKTELTRDIFTDPIFSLNTLQEYGPTFLS----------IENSIRKPHLFDYLQGIEF 343
cry4Aa     -VQSELTREIYQVLNFEESP---YKYYDFQYQ--------EDSLTRRPHLFTWLDSLNF 368
cry6Aa     -TAVQHIKNQIDEIKKQLDS--------------AQHDLDRDVKIIGMLNS--- 306
cry7Aa     -TSTQLTREVYTDPVSLSISNPDIGPSFS----------QMENTAIRTPHLVDYLDELYI 334
cry8Aa     -TTAQLTRDVYTDPIAFNIVTSTGFCNPWSTHSG-ILFYEVENNVIRPPHLFDILSSVEI 354
cry10Aa    -VKSELIREVYTNVNSDT-------FRTITEL--------ENGLTRNPTLFTWINQGRF 350
cry16Aa    EVKTELTREIYSDVINGEIYGLMTPYFSFEKA--------ESLYTRAPHLFTWLKGFRF 349
cry19Ba    HVKAELTREIYSDVINDHVYGLMVPYISFEHA--------ESLYTRRPHAFTWLKGFRF 342
cry24Aa    -TKISLSRKIYTDPVGRTDSPSFGDWTNTGRTLA-NFN-DLEREVTDSPSLVKWLGDMTI 343
cry25Aa    -TQTELSRVVYTDPVGCFGNRKSDIFSRLNFD-------YLENRLTRPREPFNYLNSVQL 354
cry40Aa1   -THVELTREIYTDPVGYSS----GTYSWLKYWTG-AFN-TLEANGTRGPGLVTWLRSIGI 358
                 .   :                                              :
```

```
axmi009    YTRTLGNMS---DVRNIWGGHTLVENGNDGSEITHNFGKTDSITPIQYFNFANLSVFSIE 417
cry1Aa     YTDVHRG--------FNYWSGHQITASPVGFSGPEFAFPLFGNAGNAAPP-VLVSLTGLG 356
cry1Ac     YTDAHRG--------YYYWSGHQIMASPVGFSGPEFTFPLYGTMGNAAPQQRIVAQLGQG 357
cry1Ca     FTDWFSVG------RNFYWGGHRVISSLIG--GGNITSPIYGREANQEPP-RSFTFNGP- 359
cry1Ia     YSLLS--RWSNT-QYMNMWGGHKLEFRTIGGTLNISTQGSTNTSINPVT----LPFTSRD 397
cry3Aa1    HTRFQPGYYGND--SFNYWSGNYVSTRPSIGSNDIITSPFYGNKSSEPVQ--NLEFNGEK 406
cry3Ba     HTRLRPGYSGKD--SFNYWSGNYVETRPSIGSNDTITSPFYGDKSIEPIQ--KLSFDGQK 407
cry3Bb     HTRLQPGYFGKD--SFNYWSGNYVETRPSIGSSKTITSPFYGDKSTEPVQ--KLSFDGQK 399
cry4Aa     YEKAQT-----TPNNFFTSHYNMFHYTLDNISQ---KSSVFG-NHNVTDKLKSLGLATNI 419
cry6Aa     -------------------------------------------------INTD 310
cry7Aa     YTSKYKAFSHEIQPDLFYWSAHKVSFKKSE-QSNLYTTGIYGKTSGYISS-GAYSFHGND 392
cry8Aa     NTSRGGITLNND-AYINYWSGHTLKYRRTADSTVTYTANYGRITSEKNS----FALEDRD 409
cry10Aa    YTRNSRDIL--DPYDIFSFTGNQMAFTHTNDDRNIIWGAVHG-NIISQDTSKVFPFYRNK 407
cry16Aa    VTNSIS------YWTFLSGGQNKYSYTN-NSSIN--EGSFRGQDTDYGGTSSTINIPSNS 400
cry19Ba    VTNSIN------SWTFLSGGENRYFLTHGEGTIY--NGPFLGQDTEYGGTSSYIDISNNS 394
cry24Aa    YTGAIDSYRPTSPGDRIGVWYGNINAFYHTGRTDVVMFRQTGDTAYEDPSTFISNILYDD 403
cry25Aa    FASTVSNSNN---GEVLRGNLNKIMFEGGWTASRSGDGVTTGTPFSTMDWSYGWGYPRKH 411
cry40Aa1   YNEYVSRYFSGWVGTRH-------YEDYTTGNGNFQRMSGTTSNDLRDISFPNS-----D 406
```

```
axmi009    SLARIYLGGTEANNYITSQYGVSRVIFNTSNIN----------NVPGSLRYEVPANLPSQ 467
cry1Aa     IFRTLSSP--LYRRIILGSGPNNQELFVLDG------TEFSFASLTTNLPSTIYRQRGTV 408
cry1Ac     VYRTLSST--LYRRPFN-IGINNQQLSVLDG------TEFAYG-TSSNLPSAVYRKSGTV 407
cry1Ca     VFRTLSNP--TLRLLQQPWPAPPFNLRGVEG------VEFSTP-----TNSFTYRGRGTV 406
cry1Ia     VYRTESLAGLNLFLTQPVNGVPRVDFHWKFVT-----HPIASDNFYYPGYAGIG--TQLQ 450
cry3Aa1    VYRAVANTNLAVWPS-AVYSGVTKVEFSQYN------DQTDEASTQTYDSKRNVGAVS-W 458
cry3Ba     VYRTIANTDIAAFPDGKIYFGVTKVDFSQYD------DQKNETSTQTYDSKRYNGYLGAQ 461
cry3Bb     VYRTIANTDVAAWPNGKVYLGVTKVDFSQYD------DQKNETSTQTYDSKRNNGHVSAQ 453
cry4Aa     YIFLLNVISLDNKY-LNDYNNISKMDFFITNGTRLLEKELTAGSGQITYDVNKNIFGLPI 478
cry6Aa     IDNLYSQGQEAIKVFQKLQGIWATIGAQIEN-----------------------LRT 344
cry7Aa     IYRTLAAPSVVVYPYTQNYGVEQVEFYGVKG------HVHYRG---------DNKYDLTY 437
cry8Aa     IFEINSTVANLANYYQKAYGVPGSWFHMVKRG-----TSSTTAYLYSKTHTALQGCTQVY 464
cry10Aa    PIDKVEIVRHR------EYSDIIYEMIFFSN-----------SSEVFRYSSNSTIENN-- 448
cry16Aa    YVYNLWTENYEYIYPWGDPVNITKMNFSVTDNN--------SSKELIYGAHRTNKPVVRT 452
cry19Ba    SIYNLWTKNYEWIYPWTDPVNITKINFSITDNS--------NSSESIYGAERMNKPTVRT 446
cry24Aa    IYKLDLRAAAVSTIQGAMDTTFGVSSSRFFDIR----------GRNQLYQS-NKPYPSL 451
cry25Aa    YAEITSRSQALPGLNNSIHVIVGIDSFRAIGPG----------GQGDHTFSLPGGDMYD 460
cry40Aa1   IFKIESKAIMNLVGEINARPEYRVSRAEFSEST----------AFIYLYDAGNSGLSSM 455
```

FIG. 1C

```
axmi009    TILSELPGKDKPRPNAGDFSHRLSYISNFDARRSS-SGGIVSLLTFGWAHTSMDRNNRLE 526
cry1Aa     DSLDVIPPQDNSVPPRAGFSHRLSHVTMLSQAAG--AVYTLRAPTFSWQHRSAEFNNIIP 466
cry1Ac     DSLDEIPPQNNNVPPRQGFSHRLSHVSMFRSGFSNSSVSIIRAPMFSWIHRSAEFNNIIA 467
cry1Ca     DSLTELPPEDNSVPPREGYSHRLCHATFVQRSGT---PFLTTGVVFSWTHRSATLTNTID 463
cry1Ia     DSENELPPEATGQPNYESYSHRLSHIGLISASHVK-ALVYS------WTHRSADRTNTIE 503
cry3Aa1    DSIDQLPPETTDEPLEKGYSHQLNYVMCFLMQGSR-----GTIPVLTWTHKSVDFFNMID 513
cry3Ba     DSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR-----GTIPFFTWTHRSVDFFNTID 516
cry3Bb     DSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR-----GTIPFFTWTHRSVDFFNTID 508
cry4Aa     LKRRENQGNPTLFPTYDNYSHILSFIKS--LSIPA--TYKTQVYTFAWTHSSVDPKNTIY 534
cry6Aa     TSLQEVQDSDDADEIQIELEDASDAWLVVAQEARD----------FTLNAYSTNSRQNLP 394
cry7Aa     DSIDQLPPDGE--PIHEKYTHRLCHATAIFKSTP--DYDNATIPIFSWTHRSAEYYNRIY 493
cry8Aa     ESSDEIPLDRT-VPVAESYSHRLSHITSHSFSKNG-SAYYGSFPVFVWTHTSADLNNTIY 522
cry10Aa    YKRTDSYMIPKQTWKNEEYGHTLSYIKTDNYIFSV--VRERRRVAFSWTHTSVDFQNTID 506
cry16Aa    DFDFLTNKEGTELAKYNDYNHILSYMLINGETFGQ--KRHG--YSFAFTHSSVDPNNTIA 508
cry19Ba    DFNFLLNRAGNGPTTYNDYNHILSYMLINGETFGQ--KRHG--YSFAFTHSSVDRYNTIV 502
cry24Aa    PITITFPGEESSEGNANDYSHLLCDVKILQEDSSNICEGRSSLLSHAWTHASLDRNNTIL 511
cry25Aa    CGKVQINPLEDYRNSDHWISDMMTINQSVQLASNPTQTFAFSALSLGWHHSSAGNRNVYV 520
cry40Aa1   TITSKLPGIKNPEPSYRDYSHRLSNAACVG-------AGNSRINVYGWTHTSMSKYNLIY 508
                                                         *       :


axmi009    PDKITQIDAVKGWGGNIG-----FVIPGPTGGNLVKVSDSWH--------SLKVQAPQRQ 573
cry1Aa     SSQITQIPLTKSTNLGS--GTSVVKGPGFTGGDILRRTSPGQISTLRVNITAPL-----S 519
cry1Ac     SDSITQIPAVKGNFLFN--G-SVISGPGFTGGDLVRLNSSGNNIQNRGYIEVPIHFPSTS 524
cry1Ca     PERINQIPLVKGFRVWG--GTSVITGPGFTGGDILRRNTFGDFVSLQVNINSPI-----T 516
cry1Ia     PNSITQIPLVKAFNLSS--GAAVVRGPGFTGGDILRRTNTGTFGDIRVNINPPF-----A 556
cry3Aa1    SKKITQLPLVKAYKLQS--GASVVAGPRFTGGDIIQCTENG----SAATIYVTP-DVSYS 566
cry3Ba     AEKITQLPVVKAYALSS--GASIIEGPGFTGGNLLFLKESSN---SIAKFKVTLNSAALL 571
cry3Bb     AEKITQLPVVKAYALSS--GASIIEGPGFTGGNLLFLKESSN---SIAKFKVTLNSAALL 563
cry4Aa     THLTTQIPAVKANSLGT--ASKVVQGPGHTGGDLIDFKDHFK-------ITCQHSN-FQQ 584
cry6Aa     INVISDSCNCSTTNMTS----NQYSNPTTN--------------------------MTS 423
cry7Aa     PNKITKIPAVKMYKLDD--PSTVVKGPGFTGGDLVKRGSTGYIGDIKATVNSPL-----S 546
cry8Aa     SDKITQIPAVKGDMLYL--GGSVVQGPGFTGGDILKRTNPSILGTFAVTVNGSL-----S 575
cry10Aa    LDNITQIHALKALKVSS--DSKIVKGPGHTGGDLVILKDSMD-------FRVRFLKNVSR 557
cry16Aa    ANKITQIPVVKASSING--SISIEKGPGFTGGDLVKMRADSG-------LTMRFKAELLD 559
cry19Ba    PDKIVQIPAVKTNLVG----ANIIAGPGGDLLKLEYERF------LSLRIK-LIAS 550
cry24Aa    PDEITQIPAVTAYELR--GNSSVVAGPGSTGGDLVKMSYHSV-------WSFKVY-CSEL 561
cry25Aa    YDKITQIPATKTVREHP-----MIKGPGFTGGDLADLSSNSDILQYDLRSDYDDR-LTED 574
cry40Aa1   PDKITQIPAVKAFDISDTGPGQVIAGPGHTGGNVVSLPYYSR-------LKIRLIPASTN 561
                                            *       .


axmi009    TSYRIRLRYACLVTHGDAIFVEHSGSSHIVS-----FFDCSNSSGRPSNTLLESDFRYID 628
cry1Aa     QRYRVIRYASTTNLQFHTSIDGRPINQG-------NFSATMSSGSNLQSGSFRTVGFTT 572
cry1Ac     TRYRVRVRYASVTPIHLNVNWGNSSIFSN-------TVPATATSLDNLQSSDFGYFESAN 577
cry1Ca     QRYRLRFRYASSRDARVIVLTGAASTGVGGQVSVNMPLQKTMEIGENLTSRTFRYTDFSN 576
cry1Ia     QRYRVIRYASTTDLQFHTSINGKAINQG-------NFSATMNRGEDLDYKTFRTVGFTT 609
cry3Aa1    QKYRARIHYASTSQITFTLSLDGAPFNQY-------YFDKTINKGDTLTYNSFNLASFST 619
cry3Ba     QRYRVIRYASTTNLRLFVQNSNNDFLVI-------YINKTMNIDGDLTYQTFDFATSNS 624
cry3Bb     QRYRVIRYASTTNLRLFVQNSNNDFLVI-------YINKTMNKDDDLTYQTFDLATTNS 616
cry4Aa     SYF-IRIRYASNGSANTRAVINLSIPGVAELG----MALNPTFSGTDYTNLKYKDFQYLE 639
cry6Aa     NQYMISHEYTSLPNNFMLSRNSNLEYKCP-------------ENNFMIYWYNNSDWYN 468
cry7Aa     QKYRVRVRYATNVSGQFNVYINDKITLQT----KFQNTVETIGEGKDLTYGSFGYIEYST 602
cry8Aa     QRYRVIRYASTTDFEFTLYLG-DTIEKN-------RFNKTMDNGASLTYETFKFASFIT 627
cry10Aa    QYQ-VRIRYATNAPKTTVFLTGIDTISVELPS----TTSRQNPNATDLTYADFGYVTFPR 612
cry16Aa    KKYRVIRYKCNYSSKLILRKWKGEGYIQQI----HNISPTYGAFSY----LESFTITT 611
cry19Ba    MTFRIRIRYASNISGQMMINIGYQNPTYFNII----PTTSRDYTELK-----FEDFQLVD 601
cry24Aa    KNYRVIRYASHGNCQFLMKRWPSTGVAP------RQWARHNVQGTFSNSMRYEAFKYLD 615
cry25Aa    VPFRIRIRCASIGVSTISVDNWGSSSPQV----------TVASTAASLDTLKYESFQYVS 624
cry40Aa1   KNYLVRVRYTSTSNGRLLVERWSPSSIIN------SYFFLPSTG-------PGDSFGYVD 608
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FIG. 1D

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axmi009    VPGIFTPSINPLIRYRTQSFG------THAIDKFEFIPLNTFPNQ-----SLEKREQEVN 677
cry1Aa     PFNFSNGSSVFTLSAHVFN-----SGNEVYIDRIEFVPAEVTFEA---EYDLERAQKAVN 624
cry1Ac     AFTSSLGN---IVGVRNFS-----GTAGVIIDRFEFIPVTATLEA---EYNLERAQKAVN 626
cry1Ca     PFSFRANPDIIGISEQPLFGAGSISSGELYIDKIEIILADATFEA---ESDLERAQKAVN 633
cry1Ia     PFSFLDVQSTFTIGAWNFS-----SGNEVYIDRIEFVPVEVTYEA---EYDFEKAQEKVT 661
cry3Aa1    PFELSG--NNLQIGVTGLS-----AGDKVYIDKIEFIPVN------------------- 652
cry3Ba     NMGFSGDTNDFIIGAESFV-----SNEKIYIDKIEFIPVQ------------------- 659
cry3Bb     NMGFSGDKNELIIGAESFV-----SNEKIYIDKIEFIPVQL------------------ 652
cry4Aa     FSNEVKFAPNQNISLVFNRSD-VYTNTTVLIDKIEFLPITRSIREDREKQKLETVQQIIN 698
cry6Aa     NSDWYNN---------------------------------------------------- 475
cry7Aa     TIQFPDEHPKITLHLSDLS-----NNSSFYVDSIEFIPVDVNYAE---KEKLEKAQKAVN 654
cry8Aa     DFQFRETQDKILLSMGDFS-----SGQEVYIDRIEFIPVDETYEA---EQDLEAAKKAVN 679
cry10Aa    TVPNKTFEGEDTLLMTLYGTP-NHS-YNIYIDKIEFIPITQSVLDYTEKQNIEKTQKIVN 670
cry16Aa    TENIFDLTMEVTYPYGRQFVE-DIPS--LILDKIEFLPTN------------------- 648
cry19Ba    TSYIYSGGPSISS--NTLWLD-NFSNGPVIIDKIEFIPLGITLNQAQGYDTYDQNANGMY 658
cry24Aa    IFTITPEENNFAFTIDLESGG------DLFIDKIEFIPVSGSAFEYEGKQNIEKTQKAVN 669
cry25Aa    IPGNYYFDSAPRIRLLRQPGR-------LLVDRIEIIPVNFFPLS-------EQENKSVD 670
cry40Aa1   TLVTTFNQPGVEIIIQN-LDT------PINVDKVEFIPVNSTALEYEGKQSLEKAQDVVN 661


axmi009    DLFIN------------------------------------------------------ 682
cry1Aa     ELFTSSNQIGLKTDVTDYHIDQVSNLVECLSDEFCLDEKQELSEKVKHAKRLSDERNLLQ 684
cry1Ac     ALFTSTNQLGLKTNVTDYHIDQVSNLVTYLSDEFCLDEKRELSEKVKHAKRLSDERNLLQ 686
cry1Ca     ALFTSSNQIGLKTDVTDYHIDQVSNLVDCLSDEFCLDEKRELSEKVKHAKRLSDERNLLQ 693
cry1Ia     ALFTSTNPRGLKTDVKDYHIDQVSNLVESLSDEFYLDEKRELFEIVKYAKQLHIERNM-- 719
cry3Aa1    ----------------------------------------------------------
cry3Ba     ----------------------------------------------------------
cry3Bb     ----------------------------------------------------------
cry4Aa     TFYANPIKNTLQSELTDYDIDQAANLVECISEELYPKEKMLLLDEVKNAKQLSQSRNVLQ 758
cry6Aa     ----------------------------------------------------------
cry7Aa     TLFTE-GRNALQKDVTDYKVDQVSILVDCISGDLYPNEKRELQNLVKYAKRLSYSRNLLL 713
cry8Aa     ALFTNTKD-GLRPGVTDYEVNQAANLVECLSDDLYPNEKRLLFDAVREAKRLSGARNLLQ 738
cry10Aa    DLFVN------------------------------------------------------ 675
cry16Aa    ----------------------------------------------------------
cry19Ba    HQNYSNSGYNYNQEYNTYYQSYNN----------------------------------- 682
cry24Aa    DLFIN------------------------------------------------------ 674
cry25Aa    SLFIN------------------------------------------------------ 675
cry40Aa1   DLFVK------------------------------------------------------ 666
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FIG. 1E